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(54) Title: EXTRACTION OF OXYGENATES FROM A HYDROCARBON STREAM

(57) Abstract: This invention relates to a commercially viable process for extracting oxygenates from a hydrocarbon stream, typically a fraction of the condensation product of a Fischer-Tropsch reaction, while preserving the olefin content of the condensation product. The oxygenate extraction process is a liquid-liquid extraction process that takes place in an extraction column using a polar organic solvent, such as methanol, and water as the solvent, wherein the polar organic solvent and water are added separately to the extraction column.





A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07C7/10 C10G21/16 According to International Patent Classification (iPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 C07C C10G Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ, CHEM ABS Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° 1-11, WO 02/31085 A (SASOL TECHNOLOGY PTY LTD; 13-19 SCHOLTZ JACOB JOHANNES (ZA); WET JOHAN PETE) 18 April 2002 (2002-04-18) page 3, paragraph 3 - page 4, paragraph 4 claims 1-16 US 4 603 225 A (COLAIANNE JAMES ET AL) 1-11, 13-19 29 July 1986 (1986-07-29) column 2, line 66 - column 3, line 8 claims 1-12 1-11, DE 199 11 910 A (LINDE AG) 13-19 21 September 2000 (2000-09-21) column 1, line 1 - line 23 column 1, line 48 - line 59 column 3, line 8 - line 29 claim 1 Patent family members are listed in annex. Further documents are listed in the continuation of box C. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance invention *E* earlier document but published on or after the international *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or "Y" document of particular relevance; the claimed invention which is cited to establish the publication date of another citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-*O* document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. *P* document published prior to the international filing date but "&" document member of the same patent family later than the priority date claimed Date of mailing of the international search report Date of the actual completion of the international search 16/09/2004 30 August 2004 Authorized officer Name and malling address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,

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